10/544153 Rec'd ST/PTO 01 AUG 2005 PCT/KR2004/000473

544, 153 PATENT COOPERATION TREATY

REC'D 2 9 MAR 2005

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

PCT

(Chapter II of the Patent Cooperation Treaty)

(PCT Artcle 36 and Rule 70)

	(1 Of Altele 30 and Ri	116 70)	
Applicant's or agent's file reference SOWC-240010	FOR FURTHER ACTION	See Form PCT/IPI	EA/416 .
International application No. PCT/KR2004/000473	International filing date(day/month/s) 05 MARCH 2004 (05.03.20)	, (),, c	onth/year)
International Patent Classification (IP	PC) or national classification and IPC	05 MARCH 2003 (I)5.03.2003)
IPC7 H04M 1/23 Applicant			
SOHNG, Woo chan	_		
This report is the international p	oreliminary examination report, establish transmitted to the applicant according to		
Authority under Article 35 and	transmitted to the applicant according to	ed by this international Preliminary Article 36.	Examining
2. Inis REPORT consists of a tota	of 3 sheets, including the	nis cover sheet	
- Post to areo necompanie	I DV A NNE X EX compaigne.		
(Sent to the applicant a	nd to the International Bureau) a total of	sheets, as follows	
Administrative]	Instructions).	Authority (see Rule 70.16 and Se	ction 607 of the
choose and total			
sileets which sup	persede earlier sheets, but which this Aut	hority considers contain an amend	mont that are a
beyond the discl Supplemental B	persede earlier sheets, but which this Aut losure in the international application as to ox	hority considers contain an amend filed, as indicated in item 4 of Box	ment that goes No. I and the
Supplemental B. b. (sent to the Internation	OX. al Bureau orbi) a total of Garage	med, as indicated in item 4 of Box	No. I and the
Supplemental B. b. (sent to the International containing a sequence I	ox. al Bureau only) a total of (indicate type a listing and/or tobles related to	and number of electronic carrier(s))	No. I and the
Supplemental B. b. (sent to the International containing a sequence I	OX.	and number of electronic carrier(s))	No. I and the
b. (sent to the International Containing a sequence I Supplemental Box related	ox. al Bureau only) a total of (indicate type a isting and/or tables related thereto, in conting to Sequence Listing (see Section 802)	and number of electronic carrier(s))	No. I and the
b. (sent to the International Containing a sequence I Supplemental Box related. This report contains indications response to the International Containing a sequence I Supplemental Box related.	ox. al Bureau only) a total of (indicate type a listing and/or tables related thereto, in conting to Sequence Listing (see Section 802) relating to the following items:	and number of electronic carrier(s))	No. I and the
b. (sent to the International Containing a sequence I Supplemental Box related. This report contains indications response to the International Containing a sequence I Supplemental Box related.	ox. al Bureau only) a total of (indicate type a listing and/or tables related thereto, in conting to Sequence Listing (see Section 802) relating to the following items:	and number of electronic carrier(s))	No. I and the
Supplemental Bob b. (sent to the International Containing a sequence I Supplemental Box related 4. This report contains indications related Box No. I Basis of the Box No. II Priority	ox. al Bureau only) a total of (indicate type a listing and/or tables related thereto, in conting to Sequence Listing (see Section 802) relating to the following items:	and number of electronic carrier(s)) mputer readable form only, as indicated for the Administrative Instructions	No. I and the cated in the).
Supplemental Bob. (sent to the International Containing a sequence I Supplemental Box related Su	ox. al Bureau only) a total of (indicate type a listing and/or tables related thereto, in colding to Sequence Listing (see Section 802) relating to the following items: e report ishment of opinion with regard to novelt	and number of electronic carrier(s)) mputer readable form only, as indicated for the Administrative Instructions	No. I and the cated in the).
Supplemental Bob b. (sent to the International Containing a sequence I Supplemental Box related 4. This report contains indications related Box No. I Basis of the Box No. II Priority Box No. III Non-estable Box No. IV Lack of units Box No. V Reasoned of the Box No.	ox. al Bureau only) a total of (indicate type a listing and/or tables related thereto, in conting to Sequence Listing (see Section 802) relating to the following items: e report ishment of opinion with regard to noveltity of invention	and number of electronic carrier(s)) mputer readable form only, as indicated in the Administrative Instructions of the Administrative Instructions y, inventive step and industrial app	No. I and the cated in the).
Supplemental Bob b. (sent to the International containing a sequence I Supplemental Box related 4. This report contains indications report contains indications report sequence I Box No. I Basis of the Box No. II Priority Box No. III Non-estable Box No. IV Lack of unit Box No. IV Reasoned secitations and	ox. al Bureau only) a total of (indicate type a listing and/or tables related thereto, in colding to Sequence Listing (see Section 802) relating to the following items: e report ishment of opinion with regard to novelt	and number of electronic carrier(s)) mputer readable form only, as indicated in the Administrative Instructions of the Administrative Instructions y, inventive step and industrial app	No. I and the cated in the).
Supplemental Be (sent to the International Containing a sequence I Supplemental Box related Supplemental Box No. I Basis of the Box No. II Priority Box No. III Non-estable Box No. IV Lack of units Box No. V Reasoned socitations and Box No. VI Certain doc	ox. al Bureau only) a total of (indicate type a listing and/or tables related thereto, in conting to Sequence Listing (see Section 802 relating to the following items: e report ishment of opinion with regard to noveltity of invention statement under Article 35(2) with regard d explanations supporting such statement cuments cited	and number of electronic carrier(s)) mputer readable form only, as indicated in the Administrative Instructions of the Administrative Instructions y, inventive step and industrial app	No. I and the cated in the).
Supplemental Box (sent to the International Containing a sequence I Supplemental Box related Supplemental Box No. I Box No. II Box No. II Priority Box No. III Non-establed Box No. IV Lack of units Box No. V Reasoned Societations and Box No. VI Certain documents Box No. VI Certain december 1997.	ox. al Bureau only) a total of (indicate type a listing and/or tables related thereto, in conting to Sequence Listing (see Section 802 relating to the following items: e report ishment of opinion with regard to noveltity of invention statement under Article 35(2) with regard explanations supporting such statement	and number of electronic carrier(s)) mputer readable form only, as indicated in the first of the Administrative Instructions y, inventive step and industrial app to novelty, inventive step or industrial	No. I and the cated in the).
Supplemental Box (sent to the International Containing a sequence I Supplemental Box related Supplemental Box No. I Box No. II Box No. II Priority Box No. III Non-establed Box No. IV Lack of units Box No. V Reasoned Societations and Box No. VI Certain documents Box No. VI Certain december 1997.	ox. al Bureau only) a total of (indicate type a listing and/or tables related thereto, in conting to Sequence Listing (see Section 802 relating to the following items: e report ishment of opinion with regard to noveltity of invention statement under Article 35(2) with regard explanations supporting such statement currents cited extension to the international application ervations on the international application	and number of electronic carrier(s)) imputer readable form only, as indicated in the first of the Administrative Instructions y, inventive step and industrial app I to novelty, inventive step or industrial	No. I and the cated in the).
Supplemental Box (sent to the International Containing a sequence I Supplemental Box related Supplemental Box No. I Box No. II Box No. II Priority Box No. III Non-estable Box No. IV Lack of units Box No. V Reasoned Scitations and Box No. VI Certain defendence Box No. VII Certain defendence Box No. VIII Certain observed.	cox. al Bureau only) a total of (indicate type a listing and/or tables related thereto, in conting to Sequence Listing (see Section 802 relating to the following items: e report ishment of opinion with regard to novelty ity of invention statement under Article 35(2) with regard explanations supporting such statement currents cited extension the international application ervations on the international application Date of comp	and number of electronic carrier(s)) mputer readable form only, as indicated in the first of the Administrative Instructions y, inventive step and industrial app to novelty, inventive step or industrial	No. I and the cated in the).
Supplemental Box (sent to the International Containing a sequence I Supplemental Box related Supplemental Box No. I Box No. II Priority Box No. III Non-estable Box No. IV Lack of units Box No. V Reasoned Scitations and Box No. VI Certain defendence of Submission of the demand Certain observate of Submission of the demand Certain Cert	ishment of opinion with regard to noveltity of invention supporting such statement under Article 35(2) with regard explanations supporting such statement cuments cited. Exercise the international application ervations on the international application. Date of comp. 28 FE	and number of electronic carrier(s)) imputer readable form only, as indicated in the Administrative Instructions of the Instructions of the Administrative Instructions of the Instructions of	No. I and the cated in the).
Supplemental Box (sent to the International Containing a sequence I Supplemental Box related Supplemental Box No. II Box No. II Priority Box No. III Non-estable Box No. VI Lack of units Box No. VI Certain document Box No. VII Certain defendence Box No. VII Certain defendence Box No. VIII Certain observate of submission of the demand Contained Supplemental Box No. VIII Certain observate of submission of the demand Contained Supplemental Box No. VIII Certain observations and mailing address of the IPEA/F	cox. al Bureau only) a total of (indicate type a listing and/or tables related thereto, in conting to Sequence Listing (see Section 802 relating to the following items: e report ishment of opinion with regard to noveltify of invention statement under Article 35(2) with regard explanations supporting such statement cuments cited extension the international application ervations on the international application Date of comp 28 FF	and number of electronic carrier(s)) imputer readable form only, as indicated in the Administrative Instructions of the Instructions of the Administrative Instructions of the Instructions of	No. I and the cated in the).
Supplemental Box (sent to the International Containing a sequence I Supplemental Box related Supplemental Box No. I Box No. II Priority Box No. III Non-estable Box No. IV Lack of units Box No. V Reasoned Scitations and Box No. VI Certain defendence of Submission of the demand Certain observate of Submission of the demand Certain Cert	cox. al Bureau only) a total of (indicate type a listing and/or tables related thereto, in conting to Sequence Listing (see Section 802 relating to the following items: e report ishment of opinion with regard to noveltify of invention statement under Article 35(2) with regard explanations supporting such statement cuments cited extension the international application ervations on the international application Date of comp 28 FF	and number of electronic carrier(s)) imputer readable form only, as indicated in them 4 of Box and number of electronic carrier(s)) imputer readable form only, as indicated in the Administrative Instructions by, inventive step and industrial app and to novelty, inventive step or industrial bletion of this report EBRUARY 2005 (28.02.2005)	No. I and the cated in the).



INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International aplication No. PCT/KR2004/000473

C	With regard to the language, this report is based on the international application in the language in which it was filed, unless
r	otherwise indicated under this item.
L	This report is based on translations from the original language into the following language which is the language of a translation of the language of a translation of the language of a translation of the language of the la
	and the gauge of a translation nimished for the numbers of
	international search (under Rules 12.3 and 23.1(b))
	publication of the international application (under Rule 12.4)
	international preliminary examination (under Rules 55.2 and/or 55.3)
to:	ith regard to the elements of the international application, this report is based on (replacement sheets which have been furnish the receiving Office in response to an invitation under Article 14 are referred to in this recent or the control of
anı	the receiving Office in response to an invitation under Article 14 are referred to in this reort as "originally filed" and are not mexed to this report):
∇	the international analysis and are not
	the international application as originally filed/furnished
	the description:
	pages
	pages*as originally filed/furnished
:	pages*received by this Authority on
· 🗀	the claims:
	pages
•	pages*as originally filed/furnished pages*as amended (together with any statment) under Article 19
	norget
_	received by this Authority on
Ш	the drawings:
	pagesas originally filed/furnished
	nages*
	received by this Authority on
	the sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing. The amendments have resulted in the cancellation of: the description, pages the claims, Nos the drawings, sheets
	The second
	the sequence listing (specify):
	the sequence listing (specify):
 1	the sequence listing (specify): any table(s) related to sequence listing (specify):
	the sequence listing (specify): any table(s) related to sequence listing (specify): This report has been established as if (some of the sequence).
	the sequence listing (specify): any table(s) related to sequence listing (specify): This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
	the sequence listing (specify): any table(s) related to sequence listing (specify): This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box [Rule 70.2(c)].
	the sequence listing (specify): any table(s) related to sequence listing (specify): This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box [Rule 70.2(c)]. the description, pages the claims, Nos.
	the sequence listing (specify): any table(s) related to sequence listing (specify): This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box [Rule 70.2(c)]. the description, pages the claims, Nos. the drawings, sheets
□	the sequence listing (specify): any table(s) related to sequence listing (specify): This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)). the description, pages the claims, Nos. the drawings, sheets the sequence listing (specify):
	the sequence listing (specify): any table(s) related to sequence listing (specify): This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)). the description, pages the claims, Nos. the drawings, sheets the sequence listing (specify):
П	the sequence listing (specify): any table(s) related to sequence listing (specify): This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box [Rule 70.2(c)]. the description, pages the claims, Nos. the drawings, sheets
	the sequence listing (specify): any table(s) related to sequence listing (specify): This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)). the description, pages the claims, Nos. the drawings, sheets the sequence listing (specify):
	the sequence listing (specify): any table(s) related to sequence listing (specify): This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)). the description, pages the claims, Nos. the drawings, sheets the sequence listing (specify):
	the sequence listing (specify): any table(s) related to sequence listing (specify): This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)). the description, pages the claims, Nos. the drawings, sheets the sequence listing (specify):
	the sequence listing (specify): any table(s) related to sequence listing (specify): This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)). the description, pages the claims, Nos. the drawings, sheets the sequence listing (specify):

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International aplication No. PCT/KR2004/000473

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Statement			
Statement			
Novelty (N)	Claims	1 - 19	
			YES
	Claims	NONE	
Invention of CO			NO
inventive step (IS)	Claims	1 - 19	
	Claims	NONE	YES
* 4			NO
Industrial applicability (IA)	Claims	<u>1</u> - 19	
	Claima	NONE	YES
	Claims	TOTAL	NO
			NO
	Statement Novelty (N) Inventive step (IS) Industrial applicability (IA)	Novelty (N) Claims Claims Inventive step (IS) Claims Claims	Novelty (N) Claims Claims 1 - 19 NONE Inventive step (IS) Claims 1 - 19 NONE Industrial applicability (IA) Claims 1 - 19

2. Citations and explanations (Rule 70.7)

1. NOVELTY AND INVENTIVE STEP

Reference is made to the following documents:

D1: KR 1999-6320 A (DANAL CO., LTD.) 25 JANUARY 1999

D2 : KR 2001-1525 A (BYUNG-YONG, LIM) 5 JANUARY 2001

D3 : US 6031471 A (TRIMBLE NAVIGATION LIMITED) 29 FEBRUARY 2000

Claim 1-19 discloses an apparatus for inputting English alphabet using a reduced keypad characterized in the keypad having five buttons of one central button, a left top button, a left bottom button, a right top button, a right bottom button arranged at each vertex of a square shape and around the central button.

D1 discloses a keypad input system by pushing the keypad buttons according to the shape of a character. In D1, all number keys in the keypad are used.

D2 discloses An apparatus for inputting Hangul(Korean alphabet) of a portable electronic apparatus to deduce visible formal characteristics of consonants and vowels in a keypad to configure the Hangul with minimal phoneme units, so as to make one key have one character to make a user easily input the Hangul. In D2, all number keys in the keypad are used too.

On the other hand, D3 discloses a graphical machine-user interface including a processor connected to a display screen to generate a screen display of individual items in groups together with the selector indication. In D3, five pushbuttons indicating four directions and middle position are recursively used to reduce a large two-dimensional matrix of item choices presented on the display to some subset.

The prior arts do not disclose the subject matter of claims 1-19. Even though the prior arts may be combined, it is not obvious to a skilled person in a CDMA communication to derive the subject matter of claims 1-19 from the prior arts.

Therefore, the subject matter of claims 1-19 is considered to meet the requirement of PCT Article 33(2) and 33(3) in respect of novelty and inventive step.

2. INDUSTRIAL APPLICABILITY

The subject matter of claims 1-19 is considered to meet the requirement of PCT Article 33(4) in respect of industrial applicability.